

EM Facility Representative Group Operating Manual

Chapter: **FR-OM-04**

Title: **Walkthroughs**

Issue Date: 10/07/03

Revision: 01

	Name/Signature	Date
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1.0 PURPOSE

- 1.1 To establish the scope and expectations for walkthrough program activities as it relates to the overall EM Integrated Assessment Procedure 3.3.
- 1.2 To provide guidance to both newly assigned and seasoned facility representative in the performance of their duty.
- 1.3 To aid in satisfying the requirements of:
 - 1.3.1 Department of Energy (DOE) Order 5480.19, "Conduct of Operations Requirements for DOE Facilities"
 - 1.3.2 Department of Energy (DOE) Order 414.1-1A, "Management Assessment and Independent Assessment Guide"
 - 1.3.3 Department of Energy (DOE) Standard 1063, "Facility Representatives"
 - 1.3.4 Oak Ridge Operations, Office of Environmental Management Procedure 3.3, "Integrated Assessment Program Oversight"
- 1.4 Attachment 1 provides guidance only and is not to be construed as a requirement during implementation of the EM Facility Representatives (FR) Walkthrough Plan.

2.0 REFERENCES

- 2.1 Department of Energy (DOE) Order 5480.19, "Conduct of Operations Requirements for DOE Facilities"
- 2.2 Department of Energy (DOE) Order 414.1-1A, "Management Assessment and Independent Assessment Guide"
- 2.3 Department of Energy (DOE) Standard 1063-2000, "Facility Representatives"
- 2.4 Oak Ridge Operations, Office of Environmental Management Procedure 3.3, "Integrated Assessment Program Oversight"

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3.0 REQUIREMENTS

- 3.1 Walkthroughs by the Facility Representative Group will generally be conducted as a walkthrough or surveillance (i.e., operational awareness activities). Due to the nature of Facility Representative duties, wherein reviews may be conducted within the timeframe of a single day, formal planning, in-briefs, or out-briefs are not required.
- 3.2 Due to the potential significance and hazards associated with Nuclear Facilities, Facility Representatives should ensure that their assigned nuclear facilities receive priority in scheduling and completion of walkthrough activities.
- 3.3 Facility Representatives should focus their reviews in one of the topical areas presented in Step 3.6 below, however this should not be construed to preclude the performance of activities in other areas on an as needed basis (i.e., event response, identified areas of concern or management directed areas of review/activities.)
- 3.4 Each Facility Representative should strive to complete walkthroughs in accordance with the Facility Representative Walkthrough Schedule (FRWS). It is recognized that periods of leave, training, etc. could impact the number of walkthroughs, and this is acceptable.
- 3.5 Based on the various and unique nature of facilities assigned to each Facility Representative, it is the responsibility of the Facility Representative to determine the type of review that is most pertinent for their facilities for inclusion into the FRWS.
- 3.6 Over the course of a twelve month period the Facility Representative should strive to ensure that they perform at least one walkthrough with the each of the listed areas Subject Matter Experts
 - 3.6.1 Conduct of Operations
 - 3.6.2 Authorization Basis (including USQD Process)
 - 3.6.3 Facility Management
 - 3.6.4 Maintenance
 - 3.6.5 Training and Qualification
 - 3.6.6 Environmental Protection
- 3.7 Periodic walkthroughs should be scheduled and conducted with Subject Matter Experts.

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- 3.8 Each Facility Representative shall perform and document the walkthroughs and issues, if any, in accordance with EM-3.3, "Integrated Assessment Program Oversight"
- 3.9 On a Quarterly basis, the Facility Representative Group Leader will select appropriate information from the completed walkthrough documentation for consolidation into the quarterly performance indicator report.
- 3.10 A monthly report may be generated to document activities which meet one or more of the following criteria:
 - 3.10.1 Issues which need to be immediately elevated to DOE management attention;
 - 3.10.2 Issues or findings which impact or involve more than one contractor (generic type issues);
 - 3.10.3 Issues or items which are repetitive in nature (corrective actions were not effective or root cause not correctly identified);
 - 3.10.4 Emerging significant activities or issues; and
 - 3.10.5 This does not preclude properly identifying emerging issues which are categorized as findings requiring contractor action(s) in accordance with EM 3.3, "Integrated Assessment Program Oversight."

4.0 RESPONSIBILITIES

- 4.1 Facility Representatives Team Leader
 - 4.1.1 Establish and maintain the requirements of this document and associated checklists.
 - 4.1.2 Provide distribution copies of this document to the appropriate support managers and EM managers, for their information.
 - 4.1.3 Ensure that EM Facility Representatives are conducting reviews and submitting documentation in a timely manner.
 - 4.1.4 On a quarterly basis, select appropriate information from the completed walkthrough documentation for consolidation into the quarterly performance indicator report.
 - 4.1.5 Review and ensure that any monthly reports generated are forwarded to the appropriate managers.

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4.2 Facility Representatives

- 4.2.1 Based on their unique skills, knowledge and hazards associated with their assigned facilities, determine the required Subject Matter Experts support to review their facilities and ensure that this information is provided to the EM Facility Representative Group Leader for inclusion in the FRWS Schedule. Maintain a log that is easy to retrieve regardless if it is a hard copy log or an electronic log.
- 4.2.2 Strive to complete reviews as established in the FRWS Schedule.
- 4.2.3 Perform and Document each review per EM 3.3, "Integrated Assessment Program Oversight"
- 4.2.4 Generate a monthly report as necessary and forward to the appropriate management.

5.0 DEFINITIONS/ACRONYMS

5.1 Definitions

- 5.1.1 None

5.2 Acronyms

- 5.2.1 DSA - Documented Safety Analysis
- 5.2.2 FRWS – Facility Representative Walkthrough Schedule

6.0 ATTACHMENTS

- 6.1 Attachment "A" Work Control Checklist
- 6.2 Attachment "B" Conduct of Operations
- 6.3 Attachment "C" Document Review Checklist
- 6.4 Attachment "D" Facility Walkthrough Checklist
- 6.5 Attachment "E" Generic Checklist
- 6.6 Attachment "F" Walkthrough Guidance

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Attachment "A" Work Control Checklist

I. PURPOSE

This checklist may be used to document the review an activity wherein work control is an important factor.

Reviewer: _____ Date: _____

Report Number: _____

Activity/Area Reviewed: _____

1.1. Scope of work well defined.

_____ Adequate _____ Marginal _____ Unacceptable _____ N/A

Comments:

1.2. Hazards fully analyzed.

_____ Adequate _____ Marginal _____ Unacceptable _____ N/A

Comments:

1.3. Controls developed and implemented to address hazards.

_____ Adequate _____ Marginal _____ Unacceptable _____ N/A

Comments:

1.4. Work performed within defined controls.

_____ Adequate _____ Marginal _____ Unacceptable _____ N/A

Comments:

1.5. Feedback captured for future use.

_____ Adequate _____ Marginal _____ Unacceptable _____ N/A

Comments:

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Attachment "B" **Conduct of Operations**

1. PURPOSE

This checklist may be used to document implementation of appropriate Conduct of Operations for field activities.

Reviewer: _____ Date: _____

Report Number: _____

Activity/Area Reviewed: _____

1.1. Applicability Matrix Completed by Contractor? _____ Yes _____ No

Comments:

1.2. Applicability Matrix Approved by DOE? _____ Yes _____ No

Comments:

1.3. DOE 5480.19 Chapter(s) Reviewed: _____

Comments:

1.4. Implementation Guidance Issued by Contractor? _____ Yes _____ No

Comments:

1.5. Level of Conduct of Operations implementation into operating procedures:

_____ Adequate _____ Marginal _____ Unacceptable _____ N/A

Comments:

1.6. Actual implementation of Conduct of Operations during activities:

_____ Adequate _____ Marginal _____ Unacceptable _____ N/A

Comments:

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Attachment "C" Document Review Checklist

1. PURPOSE

This checklist may be used in the review of contractor documents.

Reviewer: _____ Date: _____

Report Number: _____

Activity/Area Reviewed: _____

1.1. Document accurately describes pertinent facilities:

_____ Adequate _____ Marginal _____ Unacceptable _____ N/A

Comments:

1.2. Document accurately describes pertinent processes:

_____ Adequate _____ Marginal _____ Unacceptable _____ N/A

Comments:

1.3. Document steps are clear and concise:

_____ Adequate _____ Marginal _____ Unacceptable _____ N/A

Comments:

1.4. Applicable requirements are flowed-down into the document:

_____ Adequate _____ Marginal _____ Unacceptable _____ N/A

Comments:

1.5. Document is technically sound in its reasoning:

_____ Adequate _____ Marginal _____ Unacceptable _____ N/A

Comments:

1.6. Restrictions or requirements imposed by document are clear:

_____ Adequate _____ Marginal _____ Unacceptable _____ N/A

Comments:

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Attachment "D" Facility Walkthrough Checklist

1. PURPOSE

This checklist may be used to document the walkthrough and review of a facility and its condition.

Reviewer: _____ Date: _____

Report Number: _____

Activity/Area Reviewed: _____

2. Condition of:

2.1. Exterior Roof	___ A ___ M ___ U ___ N/A
2.2. Exterior Walls	___ A ___ M ___ U ___ N/A
2.3. Exterior Utility Connections	___ A ___ M ___ U ___ N/A
2.4. Grounds/Vegetation	___ A ___ M ___ U ___ N/A
2.5. Access to building	___ A ___ M ___ U ___ N/A
2.6. Waste containers	___ A ___ M ___ U ___ N/A
2.7. Interior ceiling	___ A ___ M ___ U ___ N/A
2.8. Interior walls	___ A ___ M ___ U ___ N/A
2.9. Interior floors	___ A ___ M ___ U ___ N/A
2.10. Floors clean	___ A ___ M ___ U ___ N/A
2.11. HVAC systems	___ A ___ M ___ U ___ N/A
2.12. Plumbing systems	___ A ___ M ___ U ___ N/A
2.13. Emergency response systems	___ A ___ M ___ U ___ N/A
2.14. Communication systems	___ A ___ M ___ U ___ N/A
2.15. Portable Equipment	___ A ___ M ___ U ___ N/A
2.16. Stationary equipment	___ A ___ M ___ U ___ N/A
2.17. Signs/Placards/Labels	___ A ___ M ___ U ___ N/A
2.18. Chemical Storage	___ A ___ M ___ U ___ N/A
2.19. Waste Storage	___ A ___ M ___ U ___ N/A
2.20. Contamination Postings	___ A ___ M ___ U ___ N/A
2.21. Other _____	___ A ___ M ___ U ___ N/A

(A - Adequate, M - Marginal, U - Unsatisfactory, N/A - not applicable)

Comments:

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Attachment "E" Generic Checklist

This checklist is open-ended to provide the Facility Representative a method to document activities which do not fit into the other pre-defined checklists. Number and fill in the blanks below as necessary.

Activity/Area Reviewed: _____

[illegible]

Attachment "F" **Walkthrough Guidance**

1. WALKTHROUGH GUIDANCE

This guidance is meant only to provide helpful ideas in various areas and is not meant to be a check list for the walkthrough; it is neither all-inclusive nor a minimum requirement. Reviewers who are comfortable with and experienced in this type of results-oriented walkthrough are encouraged to direct their efforts where they will be most productive and to provide comments which can be used to improve this guidance for less experienced reviewers.

Walkthroughs should determine the effectiveness of the contractors quality verification organizations in identifying technical issues and problems having safety significance and in following up to ensure they are resolved in a timely manner, as opposed to being procedure and process oriented in their activities. In general, the approach is to evaluate the contractor's quality verification organizations verifying that they are effective in identifying problems that have been identified by walkthroughs of DOE or other third parties and have been effective in identifying and addressing the precursors or root causes to events.

Quality verification organizations perform various types of verifications, such as audits, surveillances, and third-party observations. They perform their verifications in a number of functional disciplines, such as maintenance, operations, and design changes.

In the area selected for walkthrough, the reviewer should verify through direct observation of in-process activities, interviews of plant personnel, and documentation reviews of a selective sample of completed verifications performed within the past 12 months.

Based on the results of these activities, the reviewer should assess and draw conclusions regarding how well the contractor accomplished the following:

- 1.1. planned for each verification activity;
- 1.2. provided individuals of adequate technical experience and expertise to conduct the verification activity;
- 1.3. conducted the verification activity in adequate depth and with the appropriate emphasis on technical activities; and
- 1.4. implemented its corrective action responsibilities

2. DOE PREPARATION

Objective: The primary goal of walkthroughs is to establish whether the contractors' organizations are effective in performing the basic function which they were established to accomplish.

3. METHOD

The reviewer should perform a detailed analysis of the selected area (i.e., problem areas and occurrences of events) to understand the technical issues and events, purpose of the activity/organization and responsibilities of the personnel assigned to the group.

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For events or as found problems, some of the attributes which should be reviewed and one method of approach could be as follows:

- 3.1. determining the chain of events leading to the problem's occurrence;
- 3.2. developing an understanding of the technical and work activities associated with the issue;
- 3.3. determining the information that is needed to understand its generic implications;
- 3.4. determining the extent to which the contractor identified precursors to the problem and investigated the facts surrounding its occurrence; and
- 3.5. identifying the contractor's corrective actions to correct the problem and the remedial actions taken to preclude its recurrence.

4. INFORMATION BASE

Plant-specific information, including the issues of previous walkthroughs and information obtained from discussions with other reviewers should be used to perform the analysis. Other sources, such as ORPS reports, industry information notices, employee concerns, Probability Risk Assessments, and current internal contractor plant status or problem reports, also should guide the reviewer.

5. SELECTIVE SAMPLES

Selective samples are samples chosen to provide a quick picture of performance and, thus, provide for a more effective walkthrough. Items should be selected in areas where known or suspected deficiencies exist. The size of the selective sample is established when the reviewer is satisfied that sufficient data have been reviewed and documented to support a conclusion about the area sampled.

6. EXPERIENCE AND EXPERTISE

It is important that reviewers be accompanied by individuals having the necessary technical or operational experience and expertise when assessing areas other than their own areas of expertise.

7. EM WALKTHROUGH PHILOSOPHY

The EM walkthrough philosophy should ensure that the facilities owned by the Department of Energy are operated and maintained in a manner consistent with improving capabilities and continuous safety improvement.

With changes in the way the facility performs operational business, the emphasis should be placed on ensuring that ongoing activities are performed in a manner consistent with quality execution of operational responsibility. To accomplish this philosophical approach, DOE should utilize a performance based walkthrough philosophy.

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A major goal of the performance based walkthrough philosophy is to increase the emphasis on actual observation of ongoing facility activities and to reduce the dependence on documentation review. Facility activities, engineering, maintenance, plant modifications, involve many separate distinct steps which are an integral part of the safe and reliable operation of the facility. In nuclear operations, the applications of quality evaluations focus on the meaning of the term "performance". A facility that is a top performer does not necessarily run longer or have a higher production capability. A top performing facility does not only reflect a high production to down time ratio, but also operates with long term commitment to sustained reliability and safety. A performance-based walkthrough program is one which analyzes and evaluates activities based on safety and reliability, utilizing the following criteria:

- Walkthroughs should be performed on activities which are important to safety and reliability.
- Walkthroughs should be performed in a manner that emphasizes safety and reliability, not issues which will not have an impact on facility performance.
- Walkthroughs should be performed by qualified personnel who have the necessary technical capabilities to accurately observe and evaluate an activity.

Walkthroughs have been developed which when performed will assure that the facilities owned by the Department of Energy are operated in a safe and reliable manner.

8. PERFORMANCE BASED WALKTHROUGH TECHNIQUES

8.1. INTRODUCTION

Performance-based walkthrough techniques can be conducted in a multitude of methods, some are effective, and others are not. The primary concern of the reviewer should be to ensure that their efforts provide useful information for the improvement of the areas selected for review. One of the essential elements for success is experience.

An experienced reviewer can provide the essential experience needed for the proper direction and interpretation of the results of their findings, therefore the less experienced reviewers should be given the time and attention needed to develop these skills. This can be accomplished by teaming the less experienced personnel with a seasoned individual.

Other attributes important to success are discussed in the following paragraphs.

8.2. WALKTHROUGH PLANNING

Proper planning is the key to any successful endeavor. Performance-based walkthrough planning begins with the selection of the area(s), activities and elements to be assessed, including the identification of the reviewer(s) and walkthrough methodology.

The selection process should begin with the selection of the functional areas related to the functional organization, such as maintenance or technical support, through activities performed within the area. These activities may include aspects of the activity (or elements) to be observed, such as actual work activities, controls utilized to perform the activity and the technical knowledge of the individual performing the activity. Guidance or rules of thumb that can be used during a systematic selection are:

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- isolation of the activity to be assessed (if possible break down the walkthrough into small individual observable components/activities);
- emphasize the importance of the activity on the safety and reliability of the facility or system; and
- prioritization of each activity based on their significance to safety.

8.3. WALKTHROUGH IMPLEMENTATION

Direct observation of the activities or elements under walkthrough should be the preferred approach to performance-based walkthrough. However, in many cases the activity to be assessed will not be in progress at the time of the walkthrough. Since the walkthrough must still be performed, the reviewer must perform an evaluation without the benefit of direct observation. Alternative methods include:

- discussions with plant personnel;
- review of pertinent completed documentation of the performed activity; and
- review of test summaries and test results, etc.

When problems are identified during the walkthrough, the reviewer should continue to investigate the cause of the problem. This evaluation should attempt to determine if it is a specific or more generic or program issue. During this investigative phase the reviewer should make every effort to determine the root cause, for example is it an issue which can be traced to procedures and controls, training, work control, or other program areas. One of the first things the reviewer should determine is whether or not the contractor has identified this issue through their internal walkthrough programs. If the contractor has previously identified the problem then the reviewer should review the contractor's planned corrective action. If the contractor has not identified the issue, then the reviewer should try and determine why the contractor's quality verification program missed the issue.

8.4. WALKTHROUGH EVALUATION AND DOCUMENTATION

Documentation of walkthrough activities and issues are an integral part of an effective walkthrough program. When significant issues are found during a walkthrough, the reviewer should begin their own internal evaluation of the situation. The reviewer should strive to make an accurate determination of the situation. The reviewer should address the technical basis of the problem, not just the procedural or administrative details. He should try to determine the cause of the problem before documenting the issue. It is not intended for the reviewer to perform the contractors job to determine root cause. This can be done by simply evaluating the situation and based on the reviewers experience, they determine that the issue poses no threat to the facility/personnel/environment, however, once an issue reaches the reviewers internal lower limit of concern, the reviewer must follow their established protocol for identification and resolution. This be as simple as notifying the site manager and contractor personnel, or may be significant enough to warrant him to issue a Stop Work order.

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8.5. SUMMARY

The DOE performance-based walkthrough program is based upon evaluating, through direct observation of plant activities, whether quality has been achieved in plant operations. Performance-based evaluations and decisions emphasize action in areas that make a difference and are critical to plant reliability and safety. Addressing an issue that affects safety or reliability of the facility will focus attention on critical activities which can truly achieve reliable and safe facility operations.

Quality assurance is an interdisciplinary function that stresses, in its basic definition, confidence and performance as keys to success. Quality assurance is not a department, manual, or program; but is a state of mind. Quality assurance is everyone's responsibility. Its purpose is the attainment and verification of quality, but quality must be attained before it can be verified. Accurate documentation and correct procedures are not sole the measure of success in a quality assurance program. The application of performance-based concepts is used to broaden the scope and direction of DOE walkthroughs through performance oriented techniques which are based on observation and evaluation of activities affecting reliability and safety. This approach reduces the emphasis on document review and attention to indicators which do not impact reliability and safety. Therefore focusing DOE attention on activities which are important to reliability and safety will provide a model that encourages contractors to manage facility operations in a performance-based manner.